Permit with introductory note

Pollution Prevention and Control (England & Wales) Regulations 2000

Barry Cogeneration Plant
Npower Cogen Limited
Barry Silicon Based Manufacturing Installation
Winbourne Road
Dock No. 2
Barry
CF63 3DH

Permit number

BX4135IJ

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Introductory note

This introductory note does not form a part of the Permit

The following Permit is issued under Regulation 10 of the Pollution Prevention and Control (England and Wales) Regulations 2000 (S.I.2000 No.1973), as amended, ("the PPC Regulations") to operate part of an installation carrying out activities covered by the description in Section 4.2 A(1)(a)(v) in Part 1 to Schedule 1 of the PPC Regulations, to the extent authorised by the Permit:

> Section 1.1 A(1)(a) - "Burning any fuel in an appliance with a rated thermal input of 50 megawatts or more".

Aspects of the operation of the installation which are not regulated by conditions of the Permit are subject to the condition implied by Regulation 12(10) of the PPC Regulations, i.e. the Operator shall use the best available techniques for preventing or, where that is not practicable, reducing emissions from the installation.

Techniques include both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned.

In some sections of the Permit conditions require the Operator to use Best Available Techniques (BAT), in each of the aspects of the management of the installation, to prevent and where that is not practicable to reduce emissions. The conditions do not explain what is BAT. In determining BAT, the Operator should pay particular attention to relevant sections of the IPPC Sector guidance, appropriate Horizontal guidance and other relevant guidance.

A non-technical description of the installation is given in the Application, but the main features of the installation are as follows.

The permit relates to a listed, directly associated activity to the Barry Silicon Based Manufacturing Installation. The Npower Cogen operate a CHP cogeneration facility providing steam and electricity to Dow Corning and also exporting electricity to the National Grid.

The CHP plant consists of seven combustion plant using natural gas as the primary fuel with distillate fuel oil as the standby fuel. There are two cogeneration units, each consisting of a 21 MWth gas turbine, with associated 6 MWe generator, and a 38 MWth High Pressure (HP) heat recovery steam generator (HRSG) with supplementary firing, which use waste heat from the gas turbines. The two HRSGs can also operate in auxiliary mode (cold air firing) and are rated at 70MWth. The third HP fired boiler is rated at 75MWth and normally operates at a low steam load. The steam from the HP boilers is directed to the high pressure (HP) steam main and passes through a steam turbine (15 MWe) to generate electricity. The exhaust steam from the steam turbine then passes into the medium pressure (MP) steam main for the use of the Dow Corning plant, where it is used for process heating. Alternatively the HP steam can be passed through a pressure reducing valve, de-superheated by water injection and then join the MP steam main, for example if the steam turbine is undergoing maintenance. Two 23 MWth medium pressure (MP) boilers provide steam security to Dow Corning, for instance during maintenance of one of the HP boilers. The MP boilers are only infrequently used. Emission reduction techniques include the use of natural gas as the primary fuel, steam injection to reduce oxides of nitrogen from the gas turbines and staged low NOx burners on the MP boilers.

Directly associated activities include a water treatment plant, natural gas compressors, high voltage electrical substations, distillate fuel oil storage and waste water pre-treatment. Raw water to the water treatment plant is obtained by demineralising a supply from the Biglis well (provided by Dow Corning). The water treatment plant uses cation/anion exchange and high efficiency reverse osmosis (HERO) to provide high purity water for boiler feed- make-up and process use. The water treatment plant is also the main area of waste generation, which consumes hydrochloric acid and sodium hydroxide for regeneration of the ion exchange resins. After regeneration the resulting effluent is collected in a storage tank for neutralisation prior to discharge to effluent system. Effluent also arises from boiler blowdown. Process effluent is discharged to the Dow Corning chemical effluent and oily water sewer, receives further treatment by Dow Corning and is

discharged to the Cadoxton River. Uncontaminated surface water run-off is discharged to the Dow Corning surface water system and then to the Cadoxton River. Uncontaminated roof water is discharged to soakaway. There are two SSSIs within 2 km of the site, specifically the Severn Estuary and Sully Island, and a European site within 10 km of the site, being the Severn Estuary SPC/RAMSAR (<100 m). Assessment by the Agency has indicated that emissions from the installation are unlikely to have a significant impact on any of the designated sites.

The Operator supplies energy to operators who are members of a Climate Change Levy Agreement (CCLA) and is partially certified as Good Quality CHP. The Operator's environmental management system is externally accredited to ISO 14001.

Note that the Permit requires the submission of certain information to the Agency (see Sections 4 and 5). In addition, the Agency has the power to seek further information at any time under regulation 28 to the PPC Regulations provided that it acts reasonably.

Other PPC Permits relating to this installation		
Permit holder	**Permit Number**	**Date of Issue**
Dow Corning Limited	BR9685IX	06/06/06
Cabot Carbon Limited	BU2110IS	31/03/06
Vopak Terminal Windmill Limited	KP3734SH	01/06/06

Superseded Licences/Authorisations/Consents relating to this installation		
Holder	**Reference Number**	**Date of Issue**
Npower Cogen Limited	IPC authorisation AY8310 and subsequent variations	Final variation: 17/11/04

Other activities may take place on the site of this installation which are not regulated under this Permit or any other PPC Permit referred to in the Table above.

Other existing Licences/Authorisations/Registrations relating to this site		
Holder	**Reference Number**	**Date of issue**
None		

Public Registers

Considerable information relating to Permits including the Application is available on public registers in accordance with the requirements of the PPC Regulations. Certain information may be withheld from public registers where it is commercially confidential or contrary to national security.

Variations to the Permit

This Permit may be varied in the future (by the Agency serving a Variation Notice on the Operator). If the Operator itself wants any of the Conditions of the Permit to be changed, it must submit a formal Application. The Status Log within the Introductory Note to any such Variation Notice will include summary details of this Permit, variations issued up to that point in time and state whether a consolidated version of the Permit has been issued.

Surrender of the Permit

Before this Permit can be wholly or partially surrendered, an Application to surrender the Permit has to be made by the Operator. For the application to be successful, the Operator must be able to demonstrate to the Agency that there is no pollution risk and that no further steps are required to return the site to a satisfactory state.

Transfer of the Permit or part of the Permit

Before the Permit can be wholly or partially transferred to another person, an Application to transfer the Permit has to be made jointly by the existing and proposed holders. A transfer will be allowed unless the Agency considers that the proposed holder will not be the person who will have control over the operation of the installation or will not comply with the conditions of the transferred Permit. If, however, the Permit authorises the carrying out of a specified waste management activity, the transfer will only be allowed if the proposed holder is also considered to be "a fit and proper person" as required by the PPC Regulations.

Talking to us

Please quote the Permit Number if you contact the Agency about this Permit.
To give a Notification under Condition 5.1.1, the Operator should use the Incident Hotline telephone number (0800 80 70 60) or any other number notified in writing to the Operator by the Agency for that purpose.

Status Log

Detail	Date	Response Date
Application BX4135IJ	Received 17/08/05	
Response to request for information	Request dated 27/01/06	Response dated 13/03/06
Request to extend determination	Request dated 13/12/05	Request accepted 20/12/05
Request for additional information - start-up and shutdown definition - BAT assessment for the use of distillate fuel oil within the gas turbines and boilers.	Request dated 26/06/06	Response received 29/06/06
Permit determined	30/06/06	

End of Introductory Note.

Permit
Pollution Prevention and Control Regulations 2000

ENVIRONMENT AGENCY

Permit

Permit number
BX4135IJ

The Environment Agency (the Agency) in exercise of its powers under Regulation 10 of the Pollution Prevention and Control (England and Wales) Regulations (SI 2000 No 1973), hereby authorises **Npower Cogen Limited** ("the Operator"),

Of whose Registered Office (or principal place of business) is
Windmill Hill BusinessPark
Whitehill Way
Swindon
Wiltshire
SN5 6PB

Company registration number 2624987

to operate part of an Installation at
Barry Cogeneration Plant
Barry Silicon Based Manufacturing Installation
Winbourne Road
Dock No. 2
Barry
CF63 3DH

to the extent authorised by and subject to the conditions of this Permit.

Signed	Date

R Holland

Authorised to sign on behalf of the Agency

Conditions

1 General

1.1 Permitted Activities

1.1.1 The Operator is authorised to carry out the activities and the associated activities specified in Table 1.1.1.

Table 1.1.1

Activity listed in Schedule 1 of the PPC Regulations / Associated Activity	Description of specified activity	Limits of specified activity
Section 1.1 A(1) (a) : Burning any fuel in an appliance with a rated thermal input of 50 megawatts or more	Combined heat and power (CHP) production of steam and electricity	From receipt of raw materials to despatch of products and waste
Directly associated activity	Oil storage	From receipt of raw materials to dispatch for use.
Directly associated activity	Water treatment	From receipt of raw materials to demineralisation to storage for neutralisation prior to dispatch to an off site chemical effluent and oily water system.

1.2 Site

1.2.1 The activities authorised under condition 1.1.1 shall not extend beyond the Site, being the land shown edged in green on the Site Plan at Schedule 5 to this Permit, which is within the area edged in red on the Site Plan that represents the extent of the installation covered by this Permit and those of the other Operators of the installation.

1.3 Overarching Management Condition

1.3.1 Without prejudice to the other conditions of this Permit, the Operator shall implement and maintain a management system, organisational structure and allocate resources that are sufficient to achieve compliance with the limits and conditions of this Permit.

1.4 Improvement Programme

1.4.1 The Operator shall complete the improvements specified in Table 1.4.1 by the date specified in that table, and shall send written notification of the date of completion of each requirement to the Agency within 14 days of the completion of each such requirement.

Table 1.4.1: Improvement programme

Reference	Requirement	Date
IC1	The Operator shall propose in writing a method for monitoring effluent flow via release point S1. The method shall be submitted in writing to the Agency for approval including a programme for implementation.	01/10/06
IC2	The Operator shall review in writing the continuous emissions monitoring on release points A4 and A5 with respect to the requirements of the Large Combustion Plant Directive. The review shall be submitted to the Environment Agency along with a timetable for implementation of any improvements.	01/12/06
IC3	The Operator shall undertake a noise survey to determine background noise levels during plant shut down and ambient noise levels during normal operation at day and night. The survey shall satisfy the requirements of the Environment Agency's Horizontal Guidance Note IPPC H3 and BS4142: 1997. The scope of the survey and measurement locations shall be agreed with the Agency beforehand. A report that details the findings, any necessary improvements and an agreed timetable to meet the Inorganic Chemicals Sector Guidance Note IPPC S4.03 and Combustion Sector Guidance Note IPPC S2.03 standards, shall be submitted to the Agency.	01/12/07

1.4.2 Where the Operator fails to comply with any requirement by the date specified in Table 1.4.1 the Operator shall send written notification of such failure to the Agency within 14 days of such date.

1.5 Minor Operational Changes

1.5.1 The Operator shall seek the Agency's written agreement to any minor operational changes under condition 2.1.1 of this Permit by sending to the Agency: written notice of the details of the proposed change including an assessment of its possible effects (including waste production) on risks to the environment from the Permitted Installation; any relevant supporting assessments and drawings; and the proposed implementation date.

1.5.2 Any such change shall not be implemented until agreed in writing by the Agency. As from the agreed implementation date, the Operator shall operate the Permitted Installation in accordance with that change, and relevant provisions in the Application shall be deemed to be amended.

1.5.3 When the qualification "unless otherwise agreed in writing" is used elsewhere in this Permit, the Operator shall seek such agreement by sending to the Agency written notice of the details of the proposed method(s) or techniques.

1.5.4 Any such method(s) or techniques shall not be implemented until agreed in writing by the Agency. As from the agreed implementation date, the Operator shall operate the Permitted Installation using that method or technique, and relevant provisions in the Application (and the Site Protection and Monitoring Programme, as the case may be) shall be deemed to be amended.

1.6 Pre-Operational Conditions

1.6.1 There are no pre-operational conditions

1.7 Off-site Conditions

1.7.1 There are no off-site conditions

2 Operating conditions

2.1 In-Process Controls

2.1.1 The Permitted Installation shall, subject to the conditions of this Permit, be operated using the techniques and in the manner described in the documentation specified in Table 2.1.1, or as otherwise agreed in writing by the Agency in accordance with conditions 1.5.1 and 1.5.2 of this Permit.

Table 2.1.1: Operating techniques

Description	Parts	Date Received
Application	The response to questions 2.1 and 2.2 and2.10 given in sections 1, 2.3, and 2.10 of the application.	17/08/05

2.1.2 The Permitted Installation shall, subject to the other conditions of this Permit, be operated using the techniques and in the manner described in the Site Protection and Monitoring Programme submitted under condition 4.1.7 of this Permit (as amended from time to time under condition 4.1.7), or as otherwise agreed in writing by the Agency.

2.2 Emissions

2.2.1 Emissions to Air, (including heat, but excluding Odour, Noise or Vibration) from Specified Points

2.2.1.1 This Part 2.2.1 of this Permit shall not apply to releases of odour, noise or vibration.

2.2.1.2 Emissions to air from the emission points in Table 2.2.1 shall only arise from the sources specified in that Table.

Table 2.2.1 : Emission points to air		
Emission point reference or description	Source	Location of emission point
A1	Gas turbine 001A (21 MW_{th}) & HRSG 001A (38 MW_{th} or 70MW_{th} in Cold Air Operation)	A1 identified in Table 2, Section 1 of the application and revised Figure A3 "CHP Installation Plan" provided in the further information received on 13/03/06.
A2	HP fired boiler (75 MW_{th})	A2 identified in Table 2, Section 1 of the application and revised Figure A3 "CHP Installation Plan" provided in the further information received on 13/03/06.
A3	Gas turbine 001B (21 MW_{th}) & HRSG 001B (38 MW_{th} or 70MW_{th} in Cold Air Operation)	A3 identified in Table 2, Section 1 of the application and revised Figure A3 "CHP Installation Plan" provided in the further information received on 13/03/06.
A4	MP fired boiler 002A (23 MW_{th})	A4 identified in Table 2, Section 1 of the application and revised Figure A3 "CHP Installation Plan" provided in the further information received on 13/03/06.
A5	MP fired boiler 002B (23 MW_{th})	A5 identified in Table 2, Section 1 of the application and revised Figure A3 "CHP Installation Plan" provided in the further information received on 13/03/06.
A7	By-pass stack for gas turbine 001A (21 MW_{th})	A7 identified in Table 2, Section 1 of the application and revised Figure A3 "CHP Installation Plan" provided in the further information received on 13/03/06.
A8	By-pass stack for gas turbine 001B (21 MW_{th})	A8 identified in Table 2, Section 1 of the application and revised Figure A3 "CHP Installation Plan" provided in the further information received on 13/03/06.

2.2.1.3 The limits for emissions to air for the parameters and emission points set out in Table 2.2.2 shall not be exceeded.

Table 2.2.2 : Emission limits to air and monitoring				
Emission point reference	**Parameter**	**Limit (including Reference Period)[1]**	**Monitoring frequency**	**Monitoring method**
A1	Oxides of Nitrogen (as NO_2)	125mg/m^3 (burning natural gas) 95% of 1/2 hourly readings in each 24 hr period not exceeding those limits and the maximum average value not exceeding 1.5 times those levels.	Continuous	BS EN 14181 (2)
A1	Oxides of Nitrogen (as NO_2)	125 mg/m^3 (burning natural gas)	Annual manual extractive sampling	BS EN 14792 (3)
A1	Oxides of Nitrogen (as NO_2)	160 mg/m^3 (burning distillate fuel oil) 95% of 1/2 hourly readings in each 24 hr period not exceeding those limits and the maximum average value not exceeding 1.5 times those levels.	Continuous	BS EN 14181 (2)
A1	Carbon Monoxide	80 mg/m^3 (burning either natural gas or distillate fuel oil)	Continuous	ISO12039
A1	Carbon Monoxide	80 mg/m^3 (burning natural gas or distillate fuel oil)	Annual manual extractive sampling	ISO12039

Table 2.2.2 : Emission limits to air and monitoring

Emission point reference	Parameter	Limit (including Reference Period)[1]	Monitoring frequency	Monitoring method
A2	Oxides of Nitrogen (as NO_2)	125 mg/m^3 (burning natural gas) 95% of 1/2 hourly readings in each 24 hr period not exceeding those limits and the maximum average value not exceeding 1.5 times those levels.	Continuous	BS EN 14181 (2)
A2	Oxides of Nitrogen (as NO_2)	125 mg/m^3 burning natural gas)	Annual manual extractive sampling	BS EN 14792 (3)
A2	Oxides of Nitrogen (as NO_2)	160 mg/m^3 (burning distillate fuel oil) 95% of 1/2 hourly readings in each 24 hr period not exceeding those limits and the maximum average value not exceeding 1.5 times those levels.	Continuous	BS EN 14181 (2)
A2	Carbon Monoxide	80 mg/m^3 (burning either natural gas or distillate fuel oil)	Continuous	ISO12039
A2	Carbon Monoxide	80 mg/m^3 (burning natural gas or distillate fuel oil)	Annual manual extractive sampling	ISO12039
A3	Oxides of Nitrogen (as NO2)	125 mg/m^3 (burning natural gas) 95% of 1/2 hourly readings in each 24 hr period not exceeding those limits and the maximum average value not exceeding 1.5 times those levels.	Continuous	BS EN 14181 (2)
A3	Oxides of Nitrogen (as NO2)	125 mg/m^3 (burning natural gas)	Annual manual extractive sampling	BS EN 14792 (3)
A3	Oxides of Nitrogen (as NO2)	160 mg/m^3 (burning distillate fuel oil) 95% of 1/2 hourly readings in each 24 hr period not exceeding those limits and the maximum average value not exceeding 1.5 times those levels.	Continuous	BS EN 14181 (2)
A3	Carbon Monoxide	80 mg/m^3 (burning either natural gas or distillate fuel oil)	Continuous	ISO12039
A3	Carbon Monoxide	80 mg/m^3 (burning natural gas or distillate fuel oil)	Annual manual extractive sampling	ISO12039
A4	Oxides of Nitrogen (as NO2)	45 mg/m^3 (burning natural gas) 95% of 1/2 hourly readings in each 24 hr period not exceeding those limits and the maximum average value not exceeding 1.5 times those levels.	Continuous	BS EN 14181 (2)
A4	Oxides of Nitrogen (as NO2)	45 mg/m^3 (burning natural gas)	Annual manual extractive sampling	BS EN 14792 (3)

Table 2.2.2 : Emission limits to air and monitoring

Emission point reference	Parameter	Limit (including Reference Period)[1]	Monitoring frequency	Monitoring method
A4	Oxides of Nitrogen (as NO2)	65 mg/m^3 (burning distillate fuel oil) 95% of 1/2 hourly readings in each 24 hr period not exceeding those limits and the maximum average value not exceeding 1.5 times those levels.	Continuous	BS EN 14181 (2)
A4	Carbon Monoxide	80 mg/m^3 (burning either natural gas or distillate fuel oil)	Continuous	ISO12039
A4	Carbon Monoxide	80 mg/m^3 (burning natural gas or distillate fuel oil)	Annual manual extractive sampling	ISO12039
A5	Oxides of Nitrogen (as NO2)	45 mg/m^3 (burning natural gas) 95% of 1/2 hourly readings in each 24 hr period not exceeding those limits and the maximum average value not exceeding 1.5 times those levels.	Continuous	BS EN 14181 (2)
A5	Oxides of Nitrogen (as NO2)	45 mg/m^3 (burning natural gas)	Annual manual extractive sampling	BS EN 14792 (3)
A5	Oxides of Nitrogen (as NO2)	65 mg/m^3 (burning distillate fuel oil) 95% of 1/2 hourly readings in each 24 hr period not exceeding those limits and the maximum average value not exceeding 1.5 times those levels.	Continuous	BS EN 14181 (2)
A5	Carbon Monoxide	80 mg/m^3 (burning either natural gas or distillate fuel oil)	Continuous	ISO12039
A5	Carbon Monoxide	80 mg/m^3 (burning natural gas or distillate fuel oil)	Annual manual extractive sampling	ISO12039

Note 1: The limit does not apply during periods of start-up, shutdown and boiler mode changes as defined under condition 6.1.1.
Note 2: All monitoring for Oxides of Nitrogen required by this permit shall be carried out in accordance with the provisions of Annex VIII of the Large Combustion Plant Directive.
Note 3: Or to an EN, BS or ISO standard as agreed in writing with the Agency.

2.2.1.4 No condition applies.

2.2.2 Emissions to water (other than groundwater), including heat, from specified points

2.2.2.1 This Part 2.2.2 of this Permit shall not apply to releases of odour, noise or vibration or to releases to groundwater.

Emissions to Water (Other than to Sewer)

2.2.2.2 Conditions 2.2.2.3 - 2.2.2.6 shall not apply to emissions to sewer.

2.2.2.3 No emission from the Permitted Installation shall be made to water.

2.2.2.4 No condition applies.

2.2.2.5 No condition applies.

2.2.2.6 No condition applies.

Emissions to sewer

2.2.2.7 Emissions to sewer from the specified emission points in Table 2.2.7 shall only arise from the sources specified in that Table.

Table 2.2.7 Emission points to sewer

Emission point reference or description	Source	Sewer
S1 referred to as "S1" in the revised figure 3 provided in the further information dated 13/03/06	Pre-treated process effluent comprised of; water treatment effluent, boiler blowdown and oily water drains only.	Dow Corning Limited chemical effluent and oily water sewer
S2 referred to as "S2" in the revised figure 3 provided in the further information dated 13/03/06	Uncontaminated surface water run-off	Dow Corning Limited surface water system which ultimately feeds to the River Cadoxton.

2.2.2.8 No condition applies.

2.2.2.9 No condition applies.

2.2.2.10 No condition applies.

2.2.3 Emissions to groundwater

2.2.3.1 No emission from the Permitted Installation shall give rise to the introduction into groundwater of any substance in List I (as defined in the Groundwater Regulations 1998 (S.I. 1998 No. 2746)).

2.2.3.2 No emission from within the Permitted Installation shall give rise to the introduction into groundwater of any substance in List II (as defined in the Groundwater Regulations 1998 (S.I. 1998 No. 2746)) so as to cause pollution (as defined in the Groundwater Regulations 1998 (S.I. 1998 No. 2746)).

2.2.3.3 For substances other than those in List I or II (as defined in the Groundwater Regulations 1998 (SI 1998 No.2746)), the Operator shall use BAT to prevent or where that is not practicable to reduce emissions to groundwater from the Permitted Installation provided always that the techniques used by the Operator shall be no less effective than those described in the Application.

2.2.4 Fugitive emissions of substances to air

2.2.4.1 The Operator shall use BAT so as to prevent or where that is not practicable to reduce fugitive emissions of substances to air from the Permitted Installation in particular from:

- storage areas
- buildings
- pipes, valves and other transfer systems
- open surfaces

provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.

2.2.5 Fugitive emissions of substances to water and sewer

2.2.5.1 Subject to condition 2.2.5.2 below, the Operator shall use BAT so as to prevent or where that is not practicable to reduce fugitive emissions of substances to water (other than Groundwater) and sewer from the Permitted Installation in particular from:

- all structures under or over ground
- surfacing
- bunding
- storage areas

provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.

2.2.5.2 There shall be no release to water that would cause a breach of an EQS established by the UK Government to implement the Dangerous Substances Directive 76/464/EEC.

2.2.6 Odour

2.2.6.1 The Operator shall use BAT so as to prevent or where that is not practicable to reduce odorous emissions from the Permitted Installation, in particular by:

- limiting the use of odorous materials
- restricting odorous activities
- controlling the storage conditions of odorous materials
- controlling processing parameters to minimise the generation of odour
- optimising the performance of abatement systems
- timely monitoring, inspection and maintenance
- employing, where appropriate, an approved odour management plan

provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.

2.2.6.2 No condition applies.

2.2.6.3 No condition applies.

2.2.7 Emissions to Land

2.2.7.1 This Part 2.2.7 of this Permit shall not apply to emissions to groundwater.

2.2.7.2 Emissions into or onto land from the emission points specified in Table 2.2.10 shall only arise from the sources (and shall be emitted only to the soakaway) specified in that Table and, subject to the other conditions of this Permit, there shall be no other emissions to Land from the Permitted Installation.

Table 2.2.10 Emission points into land		
Emission point reference/description	**Source**	**Soakaway**
WL1	Uncontaminated roof water	Water treatment plant roof
WL2	Demineralised water tank	Demineralised water tank overflow
WL3	Uncontaminated roof water	Steam turbine roof
WL4	Uncontaminated roof water	Control room / switch room building roof
WL5	Uncontaminated roof water	Control room / switch room building roof
WL6	Uncontaminated roof water	Control room / switch room building roof

2.2.7.3 No condition applies.

2.2.8 Equivalent Parameters or Technical Measures

2.2.8.1 The Operator shall comply with the requirements specified in Table 2.2.11, which supplement or replace emission limit values in accordance with Regulation 12(8) of the PPC Regulations.

Table 2.2.11 Equivalent parameters and technical measures	
Parameter or measure	**Requirement or description of measure, and frequency if relevant**
Sulphur content of Fuel Oil used in gas turbines and boilers at the Installation.	Until 31/12/07 no fuel oil shall be used other than that with sulphur content < 0.2%
	From 01/01/08 no fuel oil shall be used other than that with sulphur content < 0.1%
Use of distillate fuel oil in gas turbines and boilers at the Installation.	Use shall be minimised and not exceed 100 days per year.

2.3 Management

2.3.1 A copy of this Permit and those parts of the application referred to in this Permit shall be available, at all times, for reference by all staff carrying out work subject to the requirements of the Permit.

Training

2.3.2 The Permitted Installation shall be supervised by staff who are suitably trained and fully conversant with the requirements of this Permit.

2.3.3 All staff shall be fully conversant with those aspects of the Permit conditions which are relevant to their duties and shall be provided with adequate professional technical development and training and written operating instructions to enable them to carry out their duties.

2.3.4 The Operator shall maintain a record of the skills and training requirements for all staff whose tasks in relation to the Permitted Installation may have an impact on the environment and shall keep records of all relevant training.

Maintenance

2.3.5 All plant and equipment used in operating the Permitted Installation, the failure of which could lead to an adverse impact on the environment, shall be maintained in good operating condition.

2.3.6 The Operator shall maintain a record of relevant plant and equipment covered by condition 2.3.5 and for such plant and equipment:

2.3.6.1 a written or electronic maintenance programme; and

2.3.6.2 records of its maintenance.

Incidents and Complaints

2.3.7 The Operator shall maintain and implement written procedures for:

2.3.7.1 taking prompt remedial action, investigating and reporting actual or potential non-compliance with operating procedures or emission limits; and

2.3.7.2 investigating incidents, (including any malfunction, breakdown or failure of plant, equipment or techniques, down time, any short term and long term remedial measures and near misses) and prompt implementation of appropriate actions; and

2.3.7.3 ensuring that detailed records are made of all such actions and investigations.

2.3.8 The Operator shall record and investigate complaints concerning the Permitted Installation's effects or alleged effects on the environment. The record shall give the date and nature of complaint, time of complaint, name of complainant (if given), a summary of any investigation and the results of such investigation and any actions taken.

2.4 Efficient use of raw materials

2.4.1 The Operator shall -

2.4.1.1 maintain the raw materials table or description submitted in Section 2.4 of the Application and in particular consider on a periodic basis whether there are suitable alternative materials to reduce environmental impact;

2.4.1.2 carry out periodic waste minimisation audits and water use efficiency audits. If such an audit has not been carried out in the 2 years prior to the issue of this Permit, then the first such audit shall take place within 2 years of its issue. The methodology used and an action plan for increasing the efficiency of the use of raw materials or water shall be submitted to the Agency within 2 months of completion of each such audit and a review of the audit and a description of progress made against the action plan shall be submitted to the Agency at least every 4 years thereafter; and

2.4.1.3 ensure that incoming water use is directly measured and recorded.

2.5 Waste Storage and Handling

2.5.1 The Operator shall design, maintain and operate all facilities for the storage and handling of waste on the Permitted installation such that there are no releases to water or land during normal operation and that emissions to air and the risk of accidental release to water or land are minimised.

2.5.2 The Operator shall use BAT so as to prevent or where that is not practicable to reduce emissions of litter from the Permitted Installation provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.

2.6 Waste recovery or disposal

2.6.1 Waste produced at the Permitted Installation shall be:

2.6.1.1 recovered to no lesser extent than described in the Application; and

2.6.1.2 where not recovered, disposed of while avoiding or reducing any impacts on the environment provided always that this is not done in any way that would have a greater effect on the environment than that described in the Application.

2.6.2 The Operator shall maintain the waste recovery or disposal table or description submitted in Section 2.6 of the Application and in particular review the available options for waste recovery and disposal for the purposes of complying with condition 2.6.1 above.

2.6.3 The Operator shall maintain and implement a system which ensures that a record is made of the quantity, composition, origin, destination (including whether this is a recovery or disposal operation) and where relevant removal date of any waste that is produced at the Permitted Installation.

2.6.4 No condition applies.

2.7 Energy Efficiency

2.7.1 The Operator shall produce a report on the energy consumed at the Permitted Installation over the previous calendar year, by 31 January each year, providing the information required by condition 4.1.2.

2.7.2 The Operator shall maintain and update annually an energy management system which shall include, in particular, the monitoring of energy flows and targeting of areas for improving energy efficiency.

2.7.3 The Operator shall design, maintain and operate the Permitted Installation so as to secure energy efficiency, taking into account relevant guidance including the Agency's Energy Efficiency Horizontal Guidance Note as from time to time amended. Energy efficiency shall be secured in particular by:

- ensuring that the appropriate operating and maintenance systems are in place;
- ensuring that all plant is adequately insulated to minimise energy loss or gain;
- ensuring that all appropriate containment methods, (e.g. seals and self-closing doors) are employed and maintained to minimise energy loss;
- employing appropriate basic controls, such as simple sensors and timers, to avoid unnecessary discharge of heated water or air;
- where building services constitute more than 5% of the total energy consumption of the installation, identifying and employing the appropriate energy efficiency techniques for building services, having regard in particular to the Building services part of the Agency's Energy Efficiency Horizontal Guidance Note H2; and

maintaining and implementing an energy efficiency plan which identifies energy saving techniques that are applicable to the activities and their associated environmental benefit and prioritises them, having regard to the appraisal method in the Agency's Energy Efficiency Horizontal Guidance Note H2.

2.8 Accident prevention and control

2.8.1 The Operator shall maintain and implement when necessary the accident management plan submitted or described in Section 2.8 of the Application. The plan shall be reviewed at least every 2 years or as soon as practicable after an accident, whichever is the earlier, and the Agency notified of the results of the review within 2 months of its completion.

2.9 Noise and Vibration

2.9.1 The Operator shall use BAT so as to prevent or where that is not practicable to reduce emissions of noise and vibration from the Permitted Installation, in particular by:

- equipment maintenance, eg. of fans, pumps, motors, conveyors and mobile plant;
- use and maintenance of appropriate attenuation, eg. silencers, barriers, enclosures;
- timing and location of noisy activities and vehicle movements;
- periodic checking of noise emissions, either qualitatively or quantitatively; and
- maintenance of building fabric,

provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.

2.9.2 No condition applies.

2.9.3 No condition applies.

2.10 On-site Monitoring

2.10.1 The Operator shall maintain and implement an emissions monitoring programme which ensures that emissions are monitored from the specified points, for the parameters listed in and to the frequencies and methods described in Table 2.2.2, unless otherwise agreed in writing, and that the results of such monitoring are assessed. The programme shall ensure that monitoring is carried out under an appropriate range of operating conditions.

2.10.2 No condition applies.

2.10.3 No condition applies.

2.10.4 No condition applies.

2.10.5 The Operator shall notify the Agency at least 14 days in advance of undertaking monitoring and/ or spot sampling, where such notification has been requested in writing by the Agency.

2.10.6 The Operator shall maintain records of all monitoring taken or carried out (this includes records of the taking and analysis of samples instrument measurements (periodic and continual), calibrations, examinations, tests and surveys) and any assessment or evaluation made on the basis of such data.

2.10.7 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme in condition 2.10.1 of this Permit shall have either MCERTS certification or MCERTS accreditation (as appropriate) unless otherwise agreed in writing.

2.10.8 There shall be provided:

2.10.8.1 safe and permanent means of access to enable sampling/monitoring to be carried out in relation to the emission points specified in Schedule 2 to this Permit, unless otherwise specified in that Schedule; and

2.10.8.2 safe means of access to other sampling/monitoring points when required by the Agency.

2.10.9 The Operator shall carry out the on-going monitoring identified in the Site Protection and Monitoring Programme submitted under condition 4.1.7, unless otherwise agreed in writing by the Agency.

2.10.10 The Operator shall, within 6 months of the issue of this Permit, in accordance with and using the format given in the Land Protection Guidance:

2.10.10.1 collect the site reference data identified in the Site Protection and Monitoring Programme submitted under condition 4.1.7, and

2.10.10.2 report that site reference data to the Agency,

- unless otherwise agreed in writing by the Agency.

2.11 Closure and Decommissioning

2.11.1 The Operator shall maintain and operate the Permitted Installation so as to prevent or minimise any pollution risk, including the generation of waste, on closure and decommissioning in particular by:-

2.11.1.1 attention to the design of new plant or equipment;

2.11.1.2 the maintenance of a record of any events which have, or might have, impacted on the condition of the site along with any further investigation or remediation work carried out; and

2.11.1.3 the maintenance of a site closure plan to demonstrate that the installation can be decommissioned avoiding any pollution risk and returning the site of operation to a satisfactory state.

2.11.2 Notwithstanding condition 2.11.1 of this Permit, the Operator shall carry out a full review of the Site Closure Plan at least every 4 years.

2.11.3 The site closure plan shall be implemented on final cessation or decommissioning of the Permitted activities or part thereof.

2.11.4 The Operator shall give at least 30 days written notice to the Agency before implementing the site closure plan.

2.12 Multiple Operator installations

2.12.1 There are no conditions as a result of the interactions of the Permits covering this installation

2.13 Transfer to effluent treatment plant

2.13.1 No transfers to effluent treatment plant are controlled under this part of this Permit.

3 Records

3.1 The Operator shall ensure that all records required to be made by this Permit and any other records made by it in relation to the operation of the Permitted Installation shall:-

3.1.1 be made available for inspection by the Agency at any reasonable time;

3.1.2 be supplied to the Agency on demand and without charge;

3.1.3 be legible;

3.1.4 be made as soon as reasonably practicable;

3.1.5 indicate any amendments which have been made and shall include the original record wherever possible;

3.1.6 be retained at the Permitted Installation, or other location agreed by the Agency in writing, for a minimum period of 4 years from the date when the records were made, unless otherwise agreed in writing; and

3.1.7 where they concern the condition of the site of the Installation or are related to the implementation of the Site Protection and Monitoring Programme, be kept at the Permitted Installation, or other location agreed by the Agency in writing, until all parts of the Permit have been surrendered.

4 Reporting

4.1.1 All reports and written and or oral notifications required by this Permit and notifications required by Regulation 16 of the PPC Regulations shall be made or sent to the Agency using the contact details notified in writing to the Operator by the Agency.

4.1.2 The Operator shall, unless otherwise agreed in writing, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:-

4.1.2.1 in respect of the parameters and emission points specified in Table S2 to Schedule 2;

4.1.2.2 for the reporting periods specified in Table S2 to Schedule 2 and using the forms specified in Table S3 to Schedule 3;

4.1.2.3 giving the information from such results and assessments as may be required by the forms specified in those Tables; and

4.1.2.4 to the Agency within 28 days of the end of the reporting period.

4.1.3 The Operator shall submit to the Agency a report on the performance of the Permitted Installation over the previous year, by 31 January each year, providing the information listed in Tables S4.1 and S4.2 of Schedule 4, assessed at any frequency specified therein, and using the form specified in Table S3 to Schedule 3.

4.1.4 The Operator shall review fugitive emissions, having regard to the application of Best Available Techniques, on an annual basis, or such other period as shall be agreed in writing by the Agency, and a summary report on this review shall be sent to the Agency detailing such releases and the measures taken to reduce them within 3 months of the end of such period.

4.1.5 Where the Operator has a formal environmental management system applying to the Permitted Installation which encompasses annual improvement targets the Operator shall, not later than 31 January in each year, provide a summary report of the previous year's progress against such targets.

4.1.6 The Operator shall, within 6 months of receipt of written notice from the Agency, submit to the Agency a report assessing whether all appropriate preventive measures continue to be taken against pollution, in particular through the application of the best available techniques, at the installation. The report shall consider any relevant published technical guidance current at the time of the notice which is either supplied with or referred to in the notice, and shall assess the costs and benefits of applying techniques described in that guidance, or otherwise identified by the Operator, that may provide environmental improvement.

4.1.7 The Operator shall, within two months of the date of this permit, submit a detailed Site Protection and Monitoring Programme, in accordance with and using the appropriate template format given in the Land Protection Guidance. The Operator shall implement and maintain the Site Protection and Monitoring Programme (SPMP) submitted under this condition, and shall carry out regular reviews of it at a minimum frequency of every 2 years. The results of such reviews and any changes made to the SPMP shall be reported to the Agency within 1 month of the review or change.

4.1.8 No condition applies.

5 Notifications

5.1.1 The Operator shall notify the Agency **without delay** of:-

5.1.1.1 the detection of an emission of any substance which exceeds any limit or criterion in this Permit specified in relation to the substance;

5.1.1.2 the detection of any fugitive emission which has caused, is causing or may cause significant pollution;

5.1.1.3 the detection of any malfunction, breakdown or failure of plant or techniques which has caused, is causing or has the potential to cause significant pollution; and

5.1.1.4 any accident which has caused, is causing or has the potential to cause significant pollution.

5.1.2 The Operator shall submit written confirmation to the Agency of any notification under condition 5.1.1, by sending:-

5.1.2.1 the information listed in Part A of Schedule 1 to this Permit within 24 hours of such notification; and

5.1.2.2 the more detailed information listed in Part B of that Schedule as soon as practicable thereafter;

and such information shall be in accordance with that Schedule.

5.1.3 The Operator shall give written notification as soon as practicable prior to any of the following:-

5.1.3.1 permanent cessation of the operation of part or all of the Permitted Installation;

5.1.3.2 cessation of operation of part or all of the Permitted Installation for a period likely to exceed 1 year; and

5.1.3.3 resumption of the operation of part or all of the Permitted Installation after a cessation notified under condition 5.1.3.2.

5.1.4 The Operator shall notify the Agency, as soon as reasonably practicable, of any information concerning the state of the Site which adds to that provided to the Agency as part of the Application or to that in the Site Protection and Monitoring Programme submitted under condition 4.1.7 of this Permit.

5.1.5 The Operator shall notify the following matters to the Agency in writing within 14 days of their occurrence:

5.1.5.1 where the Operator is a registered company:-

- any change in the Operator's trading name, registered name or registered office address;
- any change to particulars of the Operator's ultimate holding company (including details of an ultimate holding company where an Operator has become a subsidiary)
- any steps taken with a view to the Operator going into administration, entering into a company voluntary arrangement or being wound up;

5.1.5.2 where the Operator is a corporate body other than a registered company:

- any change in the Operator's name or address;
- any steps taken with a view to the dissolution of the Operator.

5.1.5.3 In any other case: -

- the death of any of the named Operators (where the Operator consists of more than one named individual);

- any change in the Operator's name(s) or address(es);
- any steps taken with a view to the Operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case them being in a partnership, dissolving the partnership;

5.1.6 Where the Operator has entered into a Climate Change Agreement with the Government, the Operator shall notify the Agency within one month of:-

5.1.6.1 a decision by the Secretary of State not to re-certify that Agreement.

5.1.6.2 a decision by either the Operator or the Secretary of State to terminate that agreement.

5.1.6.3 any subsequent decision by the Secretary of State to re-certify such an Agreement.

5.1.7 Where the Operator has entered into a Direct Participant Agreement in the Emissions Trading Scheme which covers emissions relating to the energy consumption of the activities, the Operator shall notify the Agency within one month of:-

5.1.7.1 a decision by the Operator to withdraw from or the Secretary of State to terminate that agreement.

5.1.7.2 a failure to comply with an annual target under that Agreement at the end of the trading compliance period.

5.1.8 The Operator shall notify the Agency in writing, of any known or planned introduction or material emission from the permitted installation to sewer, that may increase the concentration of any "dangerous substance", as defined in List I and List II of the Dangerous Substances Directive, 76/464/EEC, and its daughter directives.

6 Interpretation

6.1.1 In this Permit, the following expressions shall have the following meanings:-

"Application" means the application for this Permit, together with any response to a notice served under Schedule 4 to the PPC Regulations and any operational change agreed under the conditions of this Permit.

"background concentration" means such concentration of that substance as is present in:

- water supplied to the site; or
- where more than 50% of the water used at the site is directly abstracted from ground or surface water on site, the abstracted water; or
- where the Permitted Installation uses no significant amount of supplied or abstracted water, the precipitation on to the site.

"BAT" means best available techniques means the most effective and advanced stage of development of activities and their methods of operation which indicates the practical suitability of particular techniques to prevent and where that is not practicable to reduce emissions and the impact on the environment as a whole. For these purposes: "available techniques" means "those techniques which have been developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the cost and advantages, whether or not the techniques are used or produced inside the United Kingdom, as long as they are reasonably accessible to the operator"; "best" means "in relation to techniques, the most effective in achieving a high general level of protection of the environment as a whole" and "techniques" "includes both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned". In addition, Schedule 2 of the PPC Regulations has effect in relation to the determination of BAT.

"Boiler Mode Changes" means the result of a change of fuel (natural gas to distillate fuel oil (DFO)); starting or stopping the burners in Turbine Exhaust Gas (TEG) mode or changing from Force Draft/Cold Air (FD) to TEG mode and vice versa.

"Fugitive emission" means an emission to air or water (including sewer) from the Permitted Installation which is not controlled by an emission or background concentration limit under conditions 2.2.1.3, 2.2.2.4, 2.2.2.5, 2.2.2.8 or 2.2.2.9 of this Permit.

"Groundwater" means all water which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

"Land Protection Guidance" means the version of the Agency guidance note "H7 - *Guidance on the Protection of Land under the PPC Regime: Application Site Report and Site Protection and Monitoring Programme",* including its appended templates for data reporting, which is current at the time of issue of the Permit.

"$L_{Aeq,T}$" means the equivalent continuous A-weighted sound pressure level in dB determined over time period, T.

"$L_{A90,T}$" means the A-weighted sound pressure level in dB exceeded for 90% of the time period, T.

"L_{AFmax}" means the maximum A weighted sound level measurement in dB measured with a fast time weighting.

"MCERTS" means the Environment Agency's Monitoring Certification Scheme.

"Monitoring" includes the taking and analysis of samples, instrumental measurements (periodic and continual), calibrations, examinations, tests and surveys.

"Permitted Installation" means the activities and the limits to those activities described in Table 1.1.1 of this Permit.

"PPC Regulations" means the Pollution, Prevention and Control (England and Wales) Regulations SI 2000 No.1973 (as amended) and words and expressions defined in the PPC Regulations shall have the same meanings when used in this Permit save to the extent they are specifically defined in this Permit.

"Sewer" means sewer within the meaning of section 219(1) of the Water Industry Act 1991.

"Shutdown" means when the plant operator selects Burner Shut Down or when a Boiler Trip condition exists and ends once the fuel flow falls below a minimum value.

"Staff" includes employees, directors or other officers of the Operator, and any other person under the Operator's direct or indirect control, including contractors.

"Start-up" means that required stable operating conditions of pressure, temperature and steam load are achieved once the burners are in service (First Fire) and shall take no longer than 3 hours from First Fire.

"Year" means calendar year ending 31 December.

6.1.2 Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

6.1.3 Unless otherwise stated, any references in this Permit to concentrations of substances in emissions into air means:-

6.1.3.1 in relation to gases from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 15% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or

6.1.3.2 in relation to gases from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content

6.1.4 Where any condition of this Permit refers to the whole or parts of different documents, in the event of any conflict between the wording of such documents, the wording of the document(s) with the most recent date shall prevail to the extent of such conflict.

Schedule 1 - Notification of abnormal emissions

This page outlines the information that the Operator must provide to satisfy conditions 5.1.1 and 5.1.2 of this Permit.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the PPC Regulations.

Part A

Permit Number	
Name of Operator	
Location of Installation	
Location of the emission	
Time and date of the emission	

Substance(s) emitted	Media	Best estimate of the quantity or the rate of emission	Time during which the emission took place

Measures taken, or intended to be taken, to stop the emission	

Part B

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment or harm which has been or may be caused by the emission	
The dates of any unauthorised emissions from the installation in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of Npower Cogen Limited

Schedule 2 - Reporting of monitoring data

Parameters for which reports shall be made, in accordance with conditions 4.1.2 and 4.1.3 of this Permit, are listed below.

Table S2: Reporting of monitoring data

Parameter	Emission point	Reporting period	Period begins
Oxides of nitrogen (as NO_2) burning natural gas – continuous monitoring mg/m^3	A1, A2, A3, A4, A5	Every 3 months	01/07/06
Oxides of nitrogen (as NO_2) burning distillate fuel oil - continuous monitoring mg/m^3	A1, A2, A3, A4, A5	Every 3 months	01/07/06
Oxides of nitrogen (as NO_2) burning natural gas - manual extractive sampling mg/m^3	A1, A2, A3, A4, A5	Every 12 months	01/01/06
Carbon monoxide – continuous monitoring mg/m^3	A1, A2, A3, A4, A5	Every 3 months	01/07/06
Carbon monoxide – manual extractive sampling mg/m^3	A1, A2, A3, A4, A5	Every 12 months	01/01/06
Water usage	Installation	Every 12 months	01/01/06
Energy usage	Installation	Every 12 months	01/01/06
Net calorific value of the fuel burnt (GJ/tonne) for natural gas, DFO and other fuels (reporting requirements are for each LCPD release point and also in combination).	Installation	Every 12 months	01/01/06
Total annual energy usage (MJ) for LCPD plant (i.e. not including the gas turbines) (reporting requirements are for each LCPD release point and also in combination).	Installation	Every 12 months	01/01/06
Total annual energy usage (MJ) for all combustion plant including the gas turbines (reporting requirements are for all plant in combination)	Installation	Every 12 months	01/01/06
Total annual energy usage for each fuel type (MJ) for LCPD plant (i.e. not including the gas turbines)	Installation	Every 12 months	01/01/06
Total annual energy usage for each fuel type (MJ) for all combustion plant (reporting requirements are for all plant in combination)	Installation	Every 12 months	01/01/06
Waste disposal and/or recovery.	Installation	Every 12 months	01/01/06
Mass releases of oxides of nitrogen as NO2 from LCPD plant (i.e. excluding gas turbines) t/yr	Installation	Every 12 months	01/01/06
Mass releases of oxides of nitrogen as NO2 from all plant t/yr	Installation	Every 12 months	01/01/06
Mass releases of carbon monoxide from LCPD plant (i.e. excluding gas turbines) t/yr	Installation	Every 12 months	01/01/06
Mass releases of carbon monoxide from all plant t/yr	Installation	Every 12 months	01/01/06
Mass releases of sulphur dioxide from A1-A5, A7 and A8 from LCPD plant (i.e. excluding gas turbines) t/yr	Installation	Every 12 months	01/01/06
Mass releases of sulphur dioxide from all plant t/yr	Installation	Every 12 months	01/01/06

Schedule 3 - Forms to be used

Table S3: Reporting Forms		
Media / parameter	**Form Number**	**Date of Form**
Air	A1	30/06/06
Energy	E1	30/06/06
Waste Return	R1	30/06/06
Water usage	WU1	30/06/06
Mass release	MR1	30/06/06
Performance indicators	PI1	30/06/06

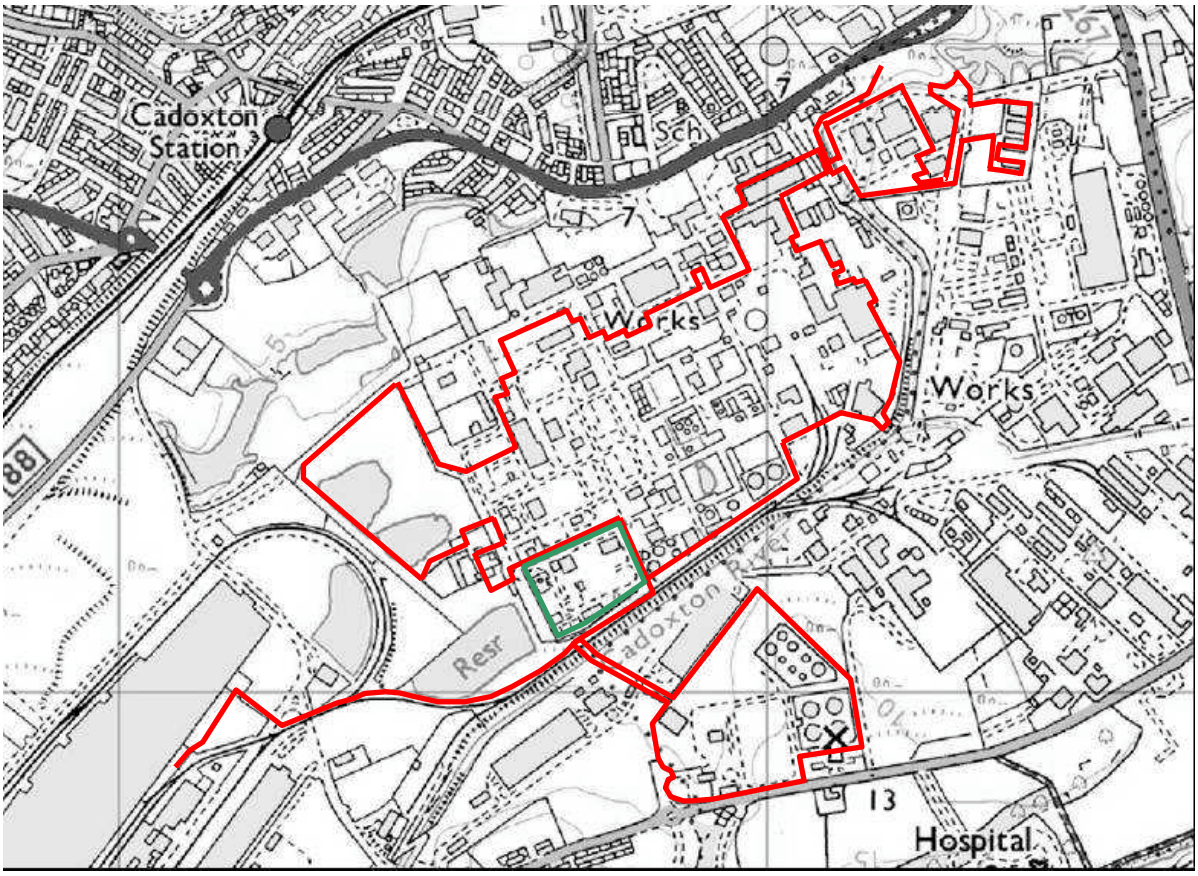
Schedule 4 - Reporting of performance data

Data required to be recorded and reported by Condition 4.1.3. The data should be assessed at the frequency given and reported annually to the Agency.

Table S4.1: Annual Production/Treatment	
Generation of steam	tonnes
Generation of electricity	MWh

Table S4.2: Performance parameters		
Parameter	Frequency of assessment	Performance indicator
Waste per tonne of steam	Annual	Tonnes waste / tonne steam
Waste per MWh of electricity	Annual	Tonnes waste / MWh electricity
Water usage per tonne of steam	Annual	m_3 water / tonne steam
Water usage per MWh of electricity	Annual	m^3 water /MWh electricity
Energy input per tonne of steam	Annual	MWh energy input / tonne steam
Energy input per MWh of electricity	Annual	MWh energy input / MWh electricity

Schedule 5 - Site Plan



Key

RWE Cogen Limited Boundary

Remaining Installation Boundary